

### **Amendments to the Drawings**

Informal original drawing sheets 1-4, corresponding to Figures 1-8 of the present application, are replaced herein by way of formal replacement sheets 1-4, which are attached to this response.

## Remarks

Claims 1-26 currently stand rejected and remain pending. No claims are amended in this response. The Assignee respectfully traverses the rejection and requests allowance of claims 1-26.

## Drawing Objections

The drawings stand objected to “because of the borderlines and notations that are not related to the Figures.” (Page 2 of the Office action.) In response, new formal replacement sheets 1-4, corresponding to Figs. 1-8, are included as an attachment to the end of this response as amendments to the informal original drawings submitted with the present application. In light of these amendments, the Assignee contends that the replacement drawings are in proper form, and respectfully requests the objection to the drawings be withdrawn.

## Claim Rejections under 35 U.S.C. § 103

Claims 1-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0181307 to Myers et al. (hereinafter “Myers”). The Assignee respectfully traverses the rejection in light of the discussion set forth below.

Claim 1 provides a communication system, comprising “a span of Phosphate-doped optical fiber configured to transport optical signals; and a *continuous wavelength light system* coupled to the span of *Phosphate-doped optical fiber* and configured to pump *continuous wavelength light* onto the span of Phosphate-doped optical fiber to generate a total gain bandwidth of at least 120 nm.” (Emphasis supplied.) Method claim 14 provides similar limitations.

The Office action indicates that Myers discloses both a span of Phosphate-doped optical fiber (in the Abstract) and a continuous wavelength light system coupled to the fiber and configured to pump continuous wavelength light onto the fiber (at paragraph [0021]). (Page 3 of the Office action.) The Assignee respectfully disagrees with both of these assertions.

Myers discloses a phosphate-based glass which is *doped with rare earth lasing ions*. (Paragraphs [0014-0016]. See also paragraph [0017], in which P<sub>2</sub>O<sub>5</sub> (phosphate) constitutes 60-

75 mole percent of the composition, according to the preferred concentration of the glass.) In other words, phosphate is a main constituent of the glass, not a dopant. Thus, Myers does not teach or suggest a “Phosphate-doped optical fiber,” as provided in claims 1 and 14, and such indication is respectfully requested.

In addition, Myers discusses a test of the phosphate-based glass involving pumping the glass with a light having a single, constant wavelength of 1310 nm. (Paragraph [0021].) However, *constant* wavelength light is not *continuous* wavelength light, as provided for in claims 1 and 14. Continuous wavelength light is light whose wavelength changes continuously, as opposed to exhibiting several separated, discrete wavelengths. Discrete wavelength light is a common output for most diode lasers, caused by a phenomenon known as “mode hopping,” whereby the observed wavelength is only allowed to change by a discrete value. An example of the continuous wavelength light pumped by a continuous wavelength light system is shown as pumping region 701 of Fig. 7 of the present application, which exhibits light over a continuous, non-discrete, band of wavelengths. (See also page 9, lines 20-21.) Thus, Myers does not teach or suggest a continuous wavelength light system, as set forth in claims 1 and 14, and such indication is respectfully requested.

Thus, the Assignee contends claims 1 and 14 are allowable for at least these reasons, and such indication is respectfully requested.

In addition, since claims 2-13 depend from independent claim 1, and claims 15-26 depend from independent claim 14, these claims are allowable for at least the reasons provided above in support their respective independent claims.

Therefore, the Assignee respectfully requests the rejection of claims 1-26 be withdrawn.

### Conclusion

Based on the above remarks, the Assignee submits that claims 1-26 are allowable. Additional reasons in support of patentability may exist, but such reasons are omitted in the interests of clarity and brevity. The Assignee thus respectfully requests allowance of claims 1-26.

The Assignee believes no fees are due with respect to this filing. However, should the Office determine additional fees are necessary, the Office is hereby authorized to charge Deposit Account No. 21-0765.

Respectfully submitted,

Date: 9/20/05



**SIGNATURE OF PRACTITIONER**

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